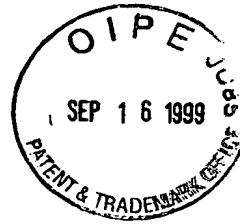


SEQUENCE LISTING



<110> Briggs, Robert E.

Tatum, Fred M.

<120> Construction of Pasteurella Haemolytica Vaccines

<130> 295.77957

<140> 09/210,747

<141> 1998-12-15

<150> 08/643,299

<151> 1996-05-08

<150> 08/162,392

<151> 1993-12-06

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Ala Leu Ala Thr Gly Thr Thr Gln Val Thr Asn Leu Leu Asp Ser Asp

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45

C'  
WT

Asp Ile Arg His Met Leu Asn Ala Leu Lys Ala Leu Gly Val Lys Tyr

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55

60

Glu Leu Ser Asp Asp Lys Thr Val Cys Val Leu Glu Gly Ile Gly Gly

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70

75

80

Ala Phe Lys Val Gln Asn Gly Leu Ser Leu Phe Leu Gly Asn Ala Gly

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90

95

Thr Ala Met Arg Pro Leu Ala Ala Leu Cys Leu Lys Gly Glu Glu

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110

Lys Ser Gln Ile Ile Leu Thr Gly Glu Pro Arg Met Lys Glu Arg Pro

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Ile Lys His Leu Val Asp Ala Leu Arg Gln Val Gly Ala Glu Val Gln

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Tyr Leu Glu Asn Glu Gly Tyr Pro Pro Leu Ala Ile Ser Asn Ser Val

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Cys Arg Gly Gly Lys Val Gln Ile Asp Gly Ser Ile Ser Ser Gln Phe

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170

175

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185

190

Ile Glu Ile Ile Gly Asp Leu Val Ser Lys Pro Tyr Ile Asp Ile Thr

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200

205

Leu Ser Met Met Asn Asp Phe Gly Ile Thr Val Glu Asn Arg Asp Tyr

210

215

220

Lys Thr Phe Leu Val Lys Gly Lys Gln Gly Tyr Val Ala Pro Gln Gly

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230

235

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Asn Tyr Leu Val Glu Gly Asp Ala Ser Ser Ala Ser Tyr Phe Leu Ala

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255

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*unl.*  
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265

270

Ile Gln Gly Asp Arg Leu Phe Ala Asp Val Leu Glu Lys Met Gly Ala

275

280

285

Lys Ile Thr Trp Gly Glu Asp Phe Ile Gln Ala Glu Gln Ser Pro Leu

290

295

300

Lys Gly Val Asp Met Asp Met Asn His Ile Pro Asp Ala Ala Met Thr

305

310

315

320

Ile Ala Thr Thr Ala Leu Phe Ala Glu Gly Glu Thr Val Ile Arg Asn

325

330

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Ile Tyr Asn Trp Arg Val Lys Glu Thr Asp Arg Leu Thr Ala Met Ala

340

345

350

Thr Glu Leu Arg Lys Val Gly Ala Glu Val Glu Glu Gly Glu Gly

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360

365

C  
unx

Glu Asp Phe Ile Arg Ile Gln Pro Leu Ala Leu Glu Asn Phe Gln His

370

375

380

Ala Glu Ile Glu Thr Tyr Asn Asp His Arg Met Ala Met Cys Phe Ser

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390

395

400

Leu Ile Ala Leu Ser Asn Thr Glu Val Thr Ile Leu Asp Pro Asn Cys

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Val Arg

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<223> The symbol n at positions 6 to 14 represents any

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unst

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